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74321 7590 04/27/2009

LAHIVE & COCKFIELD, LLP/THE MATHWORKS
FLOOR 30, SUITE 3000
One Post Office Square
Boston, MA 02109-2127

EXAMINER	
THANGAVELU, KANDASAMY	
ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 04/27/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,206	08/07/2003	Donald P. Orofino II	MWS-029RCE	4080

TITLE OF INVENTION: SYNCHRONIZATION AND DATA REVIEW SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	07/27/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

74321 7590 04/27/2009

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Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,206	08/07/2003	Donald P. Orofino II	MWS-029RCE	4080

TITLE OF INVENTION: SYNCHRONIZATION AND DATA REVIEW SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	07/27/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
THANGAVELU, KANDASAMY	2123	703-006000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:

❑ Issue Fee

❑ Publication Fee (No small entity discount permitted)

❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

❑ A check is enclosed.

❑ Payment by credit card. Form PTO-2038 is attached.

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/637,206	08/07/2003	Donald P. Orofino II	MWS-029RCE	4080

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THANGAVELU, KANDASAMY	
ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 04/27/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 422 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 422 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/637,206	OROFINO, DONALD P.	
	Examiner	Art Unit	
	KANDASAMY THANGAVELU	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *February 17, 2009*.

2. ☒ The allowed claim(s) is/are *1-17,19-34,36-51,53-70 and 72-74, 76-92*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Introduction

1. This communication is in response to the Applicants' communication dated February 17, 2009. Claims 1, 2, 4-7, 13, 16-17, 19, 21-24, 30, 33-34, 36-37, 39-41, 47, 50-51 53-54, 56, 59, 65, 68-69, 72-74, 76-77, 79-82, 87-88 and 91-92 were amended. Claims 1-17, 19-34, 36-51, 53-70 and 72-74, 76-92 of the application are pending.

Examiner's Amendment

2. Authorization for this examiner's amendment was given in a telephone conversation by Mr. John Curran on April 22, 2009.

An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. In the claims:

In claim 16, line 2, "at least one of MATLAB software, JAVA, C++"

has been changed to

-- at least one of C++ --.

In claim 23, lines 2-3, "each of the first set"

has been changed to

-- each of the data modules in the first set --.

In claim 33, line 2, "at least one of MATLAB software, JAVA, C++"

has been changed to

-- at least one of C++ --.

In claim 50, line 2, "at least one of MATLAB software, JAVA, C++"

has been changed to

-- at least one of C++ --.

In claim 68, line 2, "at least one of MATLAB software, JAVA, C++"

has been changed to

-- at least one of C++ --.

In claim 72, line 4, "a memory for storing"

has been changed to

-- a memory storing --.

In claim 72, line 8, "a processor for executing"

has been changed to

-- a processor executing --.

In claim 73, line 4, "a memory for storing"

has been changed to

-- a memory storing --.

In claim 73, line 8, "a processor for executing"

has been changed to

-- a processor executing --.

In claim 74, line 4, "a memory for storing"

has been changed to

-- a memory storing --.

In claim 74, line 8, "a processor for executing"

has been changed to

-- a processor executing --.

In claim 91, line 2, "at least one of MATLAB software, JAVA, C++"

has been changed to

-- at least one of C++ --.

Reasons for Allowance

4. Claims 1-17, 19-34, 36-51, 53-70 and 72-92 of the application are allowed over prior art of record.

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The closest prior art of record shows:

(1) in system simulators probes are used as software objects to collect data from simulated system components; a probe synchronization mechanism allow users to uniquely identify application level execution contexts of data samples gathered during a simulation of a system; a probe synchronization method and device are used to collect simulation data from various components during a period of interest; an event that occurs during the simulation may signal the beginning of the period and another event may signal the end of the period; an acquisition window having a starting point and an ending point coinciding with the occurrences of the events may be used by a probe master to cause one or more slave probes to collect data simultaneously during this period of interest; a unique identifier or tag of this period is generated by the probe master and sent to all slave probes; the tag is dumped in the simulation database; it allows post processing correlations between high level simulation events and low kevel model reactions (**Billemaz et al.,** U.S. Patent Application 2004/0093197);

(2) a distributed process control system with process modules to simulate the operation of system elements, and control modules to perform on-line control within a process and graphic displays to display information about the system elements; the various modules are

communicatively connected together to provide combined control, simulation and display functions; the data is shared between the process modules and the graphic displays; functional blocks within the control modules are executed within the process plant; control modules use the simulation data developed by the process modules to perform better control and process modules perform better simulation using the actual plant data from the control modules; the graphic displays are used to illustrate actual process data and the simulation process data developed by the control modules and the process modules; the controller implements a control strategy using a number of different, independently executed control modules or blocks; each functional block operates in conjunction with other functional blocks via communication to implement process control loops; values and parameters displayed on the graphic display may be delivered from simulation elements which implement simulation of the processes; the process modules communicate with the control modules to provide data to the control modules and access data from the control modules (**Blevins et al.,** U.S. Patent Application 2004/0153804); and

(3) a control system for controlling a plant such as an electric power system or an industrial plant in accordance with state quantities input from a plurality of equipments of the plant which include a state quantity input device; for controlling state quantities such as electric quantities which change with time, a control system having digital control apparatuses is used; the digital control apparatus recognizes a change in state of the equipment devices and abnormal states and stabilizing controls and protective controls are performed; data and procedures are transmitted via a communication network between the control devices; the equipment acquire or collect electric quantity data at predetermined periods and communicate to the control devices; the control devices use the collected data to produce control commands; the transmitting means

add the time at which sampling was done and transmit the data with the sampling time; the control system is provided with a simulation unit for generating an analog data applied for a test; the electric quantity data acquired by the control apparatuses are synchronized, being collected at the same time; the control scheme can be performed on the basis of synchronized electric quantity data; (**Shirota al.,** U.S. Patent 6,618,648).

Additional state of the art reviewed and considered by the Examiner is found in Radhakrishnan et al., "External adjustment of runtime parameters in time warp synchronized parallel simulators", IEEE 1997; Ostroff, J., "Composition and refinement of discrete real time systems", ACM 1999; and Dey et al., "Performance analysis of a system of communicating processes", IEEE, 1997.

None of these references taken either alone or in combination with the prior art of record discloses 1n a simulation environment, a computer-implemented method for controlling collection of data generated by a dynamic system model, specifically including:

(Claim 1) "providing a controller system separate from the dynamic system model on the computer system, the controller system including:

at least two free-running data modules, the free-running data modules communicatively coupled to collect data from the dynamic system model,

one or more functions, the one or more functions executed by at least two of the free-running data modules, and

at least one controller controlling two or more of the free-running data modules; and

controlling two or more of the free-running data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller" in combination with the remaining elements and features of the claimed invention.

None of these references taken either alone or in combination with the prior art of record discloses in a simulation environment, a computer-implemented method for controlling collection of data generated by a dynamic system model, specifically including:

(Claim 19) "providing a controller system separate from the dynamic system model on the computer system, the controller system including:

at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model, each of the at least two data modules operating in one of a free-running mode or a triggered mode, wherein a data module operating in triggered mode starts data collection when a trigger event occurs and stops data collection when a stop event occurs, the trigger event being external to the data module, the stop event being internal to the data module,

a snapshot function executed by at least two of the data modules that include a display of the data collected by that data module, the snapshot function freezing the display of the data collected; and

controlling a first set of two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze the displays of the data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling

performed using the at least one controller between the starting and the stopping of the first set" in combination with the remaining elements and features of the claimed invention.

None of these references taken either alone or in combination with the prior art of record discloses in a simulation environment, a computer-implemented method for controlling collection of data generated by a dynamic system model, specifically including:

(Claim 36) "providing a controller system separate from the dynamic system model on the computer system, the controller system including:

at least two free-running data modules, the free-running data modules communicatively coupled to collect data from the dynamic system model,

a suspend function executed by at least two of the free-running data modules; and

controlling, a first set of two or more of the at least two free-running data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled free-running data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller" in combination with the remaining elements and features of the claimed invention.

None of these references taken either alone or in combination with the prior art of record discloses a computer-implemented method for controlling collection of data generated by a dynamic system, specifically including:

(Claim 53) "providing a controller system separate from the dynamic system on a computer system, the controller system including:

at least two data modules, the data modules communicatively coupled to collect data from the dynamic system, each of the at least two data modules operating in one of a free-running mode or a triggered mode, wherein a data module operating in triggered mode starts data collection when a trigger event occurs and stops data collection when a stop event occurs, the trigger event being external to the data module, the stop event being internal to the data module, and

controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller between the starting and the stopping of the controlled data modules" in combination with the remaining elements and features of the claimed invention.

None of these references taken either alone or in combination with the prior art of record discloses in a simulation environment, a system for controlling collection of data generated by a dynamic system model, specifically including:

(Claim 72) "instructions for a controller system separate from the dynamic system model, the controller system including:

at least two free-running data modules, the free-running data modules communicatively coupled to collect data from the dynamic system model,

one or more functions, the one or more functions executed by at least two of the free-running data modules, and

at least one controller to control two or more of the free-running data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time" in combination with the remaining elements and features of the claimed invention.

None of these references taken either alone or in combination with the prior art of record discloses in a simulation environment, a system for controlling collection of data generated by a dynamic system model, specifically including:

(Claim 73) "instructions for a controller system separate from the dynamic system model, the controller system including:

at least two free-running data modules, the free-running data modules communicatively coupled to collect data from the dynamic system model,

a snapshot function executed by at least two of the free-running data modules that include a display of the data collected by that free-running data module, the snapshot function freezing the display of the data collected, and

at least one controller to control two or more of the free-running data modules to simultaneously execute the snapshot function to synchronously freeze the displays of the data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules" in combination with the remaining elements and features of the claimed invention.

None of these references taken either alone or in combination with the prior art of record discloses in a simulation environment, a system for controlling collection of data generated by a dynamic system model, specifically including:

(Claim 74) "instructions for a controller system separate from the dynamic system model, the controller system including:

at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model, each of the at least two data modules operating in one of a free-running mode or a triggered mode, wherein a data module operating in triggered mode starts data collection when a trigger event occurs and stops data collection when a stop event occurs, the trigger event being external to the data module, the stop event being internal to the data module,

a suspend function executed by at least two of the data modules, and

at least one controller to control two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed between the starting and the stopping of the controlled data modules" in combination with the remaining elements and features of the claimed invention.

None of these references taken either alone or in combination with the prior art of record discloses a computer-readable storage medium storing computer-executable instructions controlling collection of data generated by a dynamic system model when executed by a processor, specifically including:

(Claim 76) "providing a controller system separate from the dynamic system model, the controller system including:

at least two free-running data modules, the free-running data modules communicatively coupled to collect data from the dynamic system model,

one or more functions, the one or more functions executed by at least two of the free-running data modules, and

at least one controller controlling two or more of the free-running data modules; and

controlling two or more of the free-running data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller" in combination with the remaining elements and features of the claimed invention.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. Thangavelu
Art Unit 2123
April 22, 2009

/Paul L Rodriguez/
Supervisory Patent Examiner, Art Unit 2123